

APPRAISAL BULLETIN

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ROY WENZLICK & CO.

Real Estate Economists, Appraisors and Counselors SEPTEMBER 22

Volume XIX

Convigue 830 by ROY WENZLICK & CO. Sain Louis

Number 43

RESIDENTIAL CONSTRUCTION COSTS



SIX-ROOM BRICK HOUSE Content: 23, 100 cubic feet 1,520 square feet

DESCRIPTIVE SPECIFICATIONS STANDARD BRICK HOUSE

GENERAL CONDITIONS

Materials, Labor, Appliances. Unless otherwise specified herein, the contractor shall provide and pay for all materials. labor, water, tools, equipment, permits, light and power necessary for the completion of the Wenzlick standard six-room brick house. Unless otherwise specified, all materials shall be sound, new and of good quality and all work shall be done in a skillful and workmanlike manner.

PREPARATION OF SITE AND EXCAVATION The contractor shall clear the site of all trees. brush, etc., which come within the area of the proposed building. He shall carefully remove and stack on the plot the top soil for making the lawn.

Excavation shall be of sufficient area and depth to accommodate the building indicated; foundation walls shall be carefully backfilled. Any surplus material not required to grade the plot as designated by plans shall be removed from the premises. Any shortage of materials shall be furnished by the contractor.

Rock excavation is not included in this contract. The contractor will be paid an additional price per cubic foot for rock removal as specified in his bid.

Pumping of other than surface water is not included in the contract price. If spring or other sub-surface water is encountered, the contractor will be paid an additional price per day for keeping the excavation free at the price quoted in his bid or agreed upon between the contractor and the owner.

CONCRETE FOOTINGS AND FOUNDATIONS

Footings and foundation walls shall be installed to dimensions indicated on the plans. The mixture shall be one (1) part Portland Cement, three (3) parts clean sharp sand, five (5) parts broken stone,

trap-rock, gravel or other suitable clean coarse aggregate, graded in size to pass (cont. on page 408)





(cont. from page 405)

through a 2" screen, adequately mixed with a sufficient amount of clean water in a mechanical batch mixer, placed in the forms within one-half hour thereafter. Substantial and tight forms shall be built on both inner and outer surface foundations of the walls. No part of excavated material shall be used as a form.

FINISHED CEMENT WORK - Same as 6-room frame house (no lavatory). See August 1950 Appraisal Bulletin.

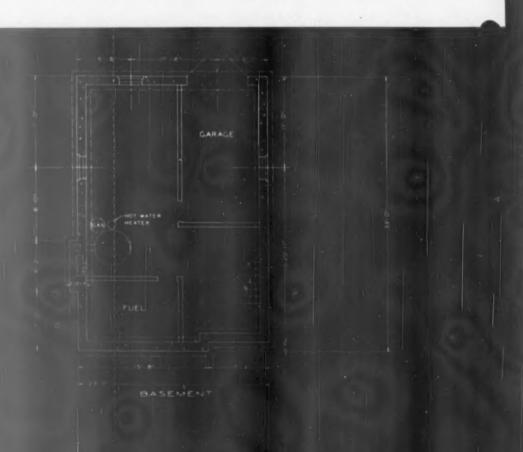
BRICKWORK AND MASONRY ITEMS

408

The contractor shall provide all brickwork as specified on the plans, comprising the exterior walls of variegated matt brick backed with 5" x 8" x 12" hollow clay tile, chimney, as indicated, with

flues lined with terracotta of proper dimensions, fireplace opening lined with fire brick, equipped with cast-iron throat and damper and steel smoke chamber. Cast-iron ash dump and clean-out doors provided as indicated.

The brick for the exterior walls shall be laid in running bond with each fifth course a header course, and laid in cement mortar composed of one (1) part bulk lime, three (3) parts clean sharp sand to which may be added 10 per cent hydrated lime. Chimney exposed above the roof shall be laid with face brick. A chimney cap shall be provided as indicated on plans. Mantel shall be of venetian red mantel brick.



All interior walls and ceilings shall be covered with LATHING AND PLASTERING three coats of plaster. Plaster shall be applied directly to the inside surface (hollow tile) of the

exterior masonry walls. Interior stud partitions and ceilings shall be covered with three coats of plaster over rock lath (or expanded metal lath) secured to study (or joists) at each intersection with blued lath nail, corner beads provided for all exterior angles. The scratch coat shall be one (1) part lime putty to two (2) parts sand, with proper proportions of fiber and sand added. The brown coat shall be one (1) part lime putty to three (3) parts sand. The finished coat shall be one (1) part dry gauged plaster to two (2) parts dry hydrated lime. First grade workmanship is required in the application of each plaster coat. No cornice or other ornamental plaster work is contemplated under this contract.

Where tiled walls occur in the bathroom, the contractor shall cover with metal lath and cement mortar scratch.

INSULATION

Four inches of loose insulating material, rock wool or equal, shall cover entire area of second floor ceiling.

TILING

This specification provides for tiling bathroom floor and walls; the floor shall be prepared by the carpenter and mason, and the walls by plaster

contractor as specified above. The tile setter shall furnish and install 4-1/4 x 4-1/4 glazed commercial-grade wall tile with approved caps, cove bases, angles, etc.; color to be selected by owner. Tile installed to height of 3' 6" in the bathroom and to the ceiling around the bath tub. Bathroom floor shall be 1" or 2" hexagonal white ceramic tile. The contractor shall furnish all setting materials and on completion leave the entire work properly grouted and cleaned.

ROUGH CARPENTRY AND FRAMING MATERIAL

Rough carpentry and framing material shall be the best grade provided in local practice. It may be yellow pine, white pine, fir or hemlock. All material shall be of sizes indicated, with allowance

for milling. All joists, studs and rafters shall be spaced 16" c to c, and one line of cross bridging shall be provided for each floor span exceeding 10 feet.

UNDERFLOORING AND SHEATHING

Sheathing on roof and all sub-flooring shall be provided as indicated. Material shall be No. 2, dressed and not over 6" wide, laid diagonally for floors and each intersection well secured by two 6d nails.

ROOFING

Roof shall be asphalt 3-in-1 shingles, weighing not less than 210 lbs. per square.

PAPER AND FELT

Before placing asphalt shingles the roof surface shall be covered with one course of approved waterproof building felt weighing not less than 15

lbs. per square. Material to be well nailed and lapped at least 2" at all edges. Before placing the finished flooring all sub-flooring shall be covered with 1 course of building paper.

(cont. on page 412)

A SIX-ROOM BRICK HOUSE BUILT IN SAINT LOUIS OF BUILDING COSTS

MATERIAL

LABOR

OVERHEAD

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- Cost of all materials for planshing, heating, observed work, iron work, inchese, tiling and secondocries, iron work, roctal, materials of econocies, or soft, which were roctal materials.
- Cost of labor on lathing and plantering.
 Cost of carpentry, rooting, flooring, painting
 and builder's general supervision. Cost of setting all stone, laying brick and pour
 - Cost of installing plumbing material and fix-tures, wiring, heating plant and sheet metal work. Cost of excavation, grading and landscaping. TOTAL LABOR COST. 110
- of subcontractors in plantering, metal work, beaufile, planting, electron work and the work general contractors's profit; and Massauri solven last (pow 25, on medicarial), old age and weem-playment fax (Pwdwrit and State), inhality and compleyes composition and State), inhality and compleyes composition and state, inhality and complete composition and complete band. TOTAL OVERREAD, PROFIT AND OTHER CORTS, This time includes overhead and profit 120 13.

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(cont. from page 409)

FLASHING - SHEET METAL WORK - Same as 6-room frame house.

MILLWORK - INTERIOR - Same as 6-room frame house.

FINISHED FLOORS - Same as 6-room frame house.

BUILT-IN CABINETS - Built-in kitchen cabinets shall be provided as shown on plans.

BASEMENT STAIRS - Same as 6-room frame house.

FINISHED STAIRS

1-1/8" x 3' 6".

Stairs from first to second floor shall be furnished and erected as indicated on the plans properly supported on 2" x 8" carriages and blocking. Risers shall be of pine B or better. 3/4 x 7½" x 3' 6"; treads of red or white oak, 11½" x

PAINTING - Same as 6-room frame house.

PLUMBING

This specification contemplates a complete plumbing, drainage and water-supply system for one bathroom and one kitchen.

Sewer Line. Vents and Drainage - Same as 6-room frame house.

Water Supply - Same as 6-room frame house.

Fixtures. There shall be furnished and installed to the rough connections here provided fixtures of quality equal to those specified in the following list: (The following list covers items manufactured by the Independent Plumbing and Heating Company. Contractor is permitted to substitute any equal combination.)

60" Queen sink #457

One Knight pedestal lavatory 20" x 24" over all #224

One Colonial vitreous china toilet with white ivorvette seat #344

One 60" bath tub #123

Hot Water Supply - Same as 6-room frame house.

Alternates - Same as 6-room frame house.

HEATING PLANT

The contractor shall install one forced circulation combination furnace (24") and blower with automatic humidifier complete with necessary leads

and returns made of 26-gauge galvanized steel. The contractor shall guarantee the heating plant to heat the entire living quarters of the house to 70 degrees F. when the outside temperature is 0 degrees F. and the wind velocity not in excess of 30 miles per hour, with not less than a 6-hour firing period.

ELECTRIC WIRING - Same as 6-room frame house.



6-ROOM CALIFORNIA BUNGALOW Content: 12, 119 cubic feet 992 square feet

DESCRIPTIVE SPECIFICATIONS CALIFORNIA BUNGALOW

GENERAL CONDITIONS

Materials, Labor, Appliances. Unless otherwise specified herein, the contractor shall provide and pay for all materials, labor, water, tools, equipment, permits, light and power necessary for the completion of the Wenzlick California bungalow. Unless otherwise specified, all materials shall be sound, new and of good quality and all work shall be done in a skillful and workmanlike manner.

PREPARATION OF SITE AND EXCAVATION

The contractor shall clear the site of all trees, brush, etc., which come within the area of the building. Excavation shall be of sufficient depth to carry the footings below the frost line.

Rock excavation is not included in this contract. The contractor will be paid an additional price per cubic foot for rock removal as specified in his bid.

CONCRETE FOOTINGS

Footings shall be 6" x 12" poured concrete and foundation walls shall be 6" poured concrete as indicated on the plans. The mixture shall be one (1) part Portland Cement, three (3) parts clean sharp

sand, five (5) parts broken stone, trap-rock, gravel or other suitable clean coarse aggregate, graded in size to pass through a 2" screen, adequately mixed with a sufficient amount of clean water in a mechanical batch mixer. Substantial and tight forms shall be built on both inner and outer surface foundations of walls. No part of excavated material shall be used as a form.

FINISHED CEMENT WORK

Concrete entrance slabs and a slab for the future garage shall be 4" poured concrete. A smooth finish coat of one (1) part Portland Cement and

two (2) parts sharp clean sand shall be applied to a thickness of not less than one-half inch to the top surface of entrance slabs and the slab for the future garage. Concrete filling shall be provided for tile floor in the bathroom.

BRICKWORK AND MASONRY ITEMS

The contractor shall provide all brickwork as specified on the plans, comprising chimney, flues lined with flue lining of proper dimensions, fireplace opening lined with fire brick, equipped with

cast-iron throat. Outer face of fireplace is to be venetian red mantel brick. Cement mortar shall be composed of one (1) part bulk lime, three (3) parts clean sharp sand to which shall be added 10% Portland Cement. A chimney can shall be provided as indicated on the plans.

STUCCO

The surface of the outer walls shall be covered with three (3) coats of one to three (1 to 3) Portland Cement stucco over metal lath. The third coat shall be tinted, color to be selected by the owner.

LATHING AND PLASTERING - Same as 6-room frame house.

INSULATION

Four inches of loose insulating material, rock wool or equal, shall cover entire area of the ceiling.

TILING

This specification provides for tiling bathroom floor and walls; the floor shall be prepared by the carpenter and mason, and the walls by plaster

contractor as specified above. The tile setter shall furnish and install 4-1/4 x 4-1/4 glazed commercial-grade wall tile with approved caps, cove bases, angles, etc.; color to be selected by owner. Tile installed to height of 3' 6" in the bathroom and to the ceiling around the bath tub. Bathroom floor shall be 1" or 2" hexagonal white ceramic tile.

The contractor shall furnish all setting materials and on completion leave the entire work properly grouted and cleaned.

ROUGH CARPENTRY AND FRAMING MATERIAL

Rough carpentry and framing material shall be the best grade provided in local practice. It may be yellow pine, white pine, fir or hemlock. All material shall be of sizes indicated, with allow-

ance for milling.

Floor Joists 2" x 6" - spaced 16" c to c Ceiling Joists 2" x 4" - spaced 16" c to c Roof Rafters 2" x 4" - spaced 16" c to c Studding in exterior walls and interior partitions 2" x 4" - spaced 16" c to c

One line of 2" x 3" cross bridging shall be provided for each joist span over 8'. Framing shall be in accordance with best practice. The entire structure shall be braced and trussed where necessary and securely nailed as required by best practice. Floor joists shall be supported by three 4 x 6 girders resting on fourteen 4 x 4 posts supported by concrete piers as indicated on plans. Sheathing on roof and all sub-flooring shall be provided as indicated. Material shall be number two (No. 2), 1 x 6 or 1 x 8 boards laid diagonally for floors, and each intersection well secured by two 6d nails.

PAPER AND FELT

Before placing exterior metal lath all exterior surface shall be covered with one course of approved waterproof building paper. This material

shall be well nailed and lapped not less than 2" at all edges, applied in double thickness along all window and door openings.

Before placing asphalt shingles, the entire roof sheathing shall be covered with waterproof roofing felt weighing not less than 15 lbs. per square. This roof felt shall be well nailed and lapped not less than 2" at all edges.

Before placing the finished flooring, all sub-flooring shall be covered with one course of 15-lb, waterproofed roofing felt well nailed and lapped not less than 2" at all edges.

FLASHING - SHEET METAL WORK

Provide and install 16-ounce copper flashing for valleys and angles, chimney counter and step flashed. Provide gutter and downspout (see plans) of 16-ounce copper with necessary fittings, all se-

curely supported by approved hangers and straps.

MILLWORK - WINDOW FRAMES AND SASH

Stock window frames and sash shall be provided of the sizes shown on the plans. These shall be double-hung type as indicated, with the exception of two stationary plate glass windows. Sash shall

be glazed with double-strength clear glass provided completely with jam-proof (Stanley or equal) pulleys, weights and sash cord. The sash shall be 1-3/8" thick, check-rail type. Exterior door frames shall be 2" clear pine rabbeted to receive 1-3/4" stock doors. Two (2) suitable attic ventilators shall be installed as shown on plans.

INTERIOR MILLWORK - Same as 6-room frame house.

FINISHED FLOORS

Finished floors shall be of clear select red oak 2-1/4" x 13/16", to be placed over all floor areas except the bath. Flooring shall be laid tight and even and nailed every 16". All oak flooring shall be scraped or sanded and com-

pleted ready for the painters.

Built-in kitchen cabinets shall be provided as indicated in the plans.

PAINTING - Same as 6-room frame house.

PLUMBING

CABINETS

This specification contemplates a complete plumbing, drainage and water-supply system for one bathroom and one kitchen.

Sewer Line, Vents and Drainage - Same as 6-room frame house.

Water Supply - Same as 6-room frame house. (cont. on page 420)

BUILDING COSTS OF A CALIFORNIA TYPE BUNGALOW BUILT IN SAINT LOUIS

Conta are grouped into their classifications of materials, their of tables and three of overthead.

A hirther breakdone of their groups is given in default beine. Columns of the table are numbered, and a first description of the Herma inclinded in each is given in the paragraphs beine. Paragraphs are numbered to correspond with the columns described. Building galactist costs are indicated by the letter M; corresponding labor thems by the letter L. Mo tables them as shown in Columns 19, Building Mardware, as there are some an Column 19, Building Mardware, as they have already been technical to Column 5, Millwork.

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and nummon brick, five brick, flow liming.

(2) Tile Wort: 4-1/4 x 4-1/4 scall tile, ceramic floor tile, cap and base.

Grap E. (2) Unflushed Lember: Columns, Seams, Toor and celling joints, interior and exterior

studis, raflers, bracing, etc.

(a) Finished Lumbert Sol-Gooring, Seexibing, liniabed floors, asphalt shingle roofing,
(a) Finished Lumbert Sol-Gooring, Seexibing, liniabed floors, asphalt shingle roofing,
(3) Milliwork, Windows, Soirs, trim, kitchen cabinet, stairs

Organ C. (6) Heating Beating plant, heating distribution, radiation.

(7) Plumbing. Still pipes and connections, stack, water pipe and connections, lend oakum and bathroom fastures, water heater and uses to be furnished by others.

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(N. Bleet Metal: Sort: Main switch, BX cable, switch bones, receptacles, transformer,

ete. No fixtures included. (10) Nata and Marthwate. Common and wire mails, holls, damper, ash doors, finish hard-wate, vis.

(11) Painting White lead, inneed int, inspention, varnist, shellar, filler.
(12) Mincellaneous. Lath, corner beat, invalation.

Total Material and Labor Comis Corses.

(13) Total overtices, profit and other costs. This them includes previous and profit of subcontractors in plantering, metal work, heating, piumining, electrical work and tile work, percent contractor, broth, and Missours since has from 28 on materials), sed age and suremployment Lat (Frderal and State), listiffy and employees' compensation in marance, fire and tornado inautance, and completion bond.

TOTAL CONSTRUCTION COST

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(cont. from page 415)

Fixtures. There shall be furnished and installed to the rough connections here provided fixtures of quality equal to those specified in Crane or Kohler catalogues, or approved by the owner. They shall include one pedestal lavatory, one vitreous china toilet, one 60" bath tub with shower. (Sink provided for in Cabinets.)

Hot Water Supply. A domestic heater is not provided under these specifications. It will be provided under separate order on selection by the owner and cost of connecting and placing the device in operation shall be included under this original plumbing contract.

Alternates. If local building codes and practice do not permit the use of copper tubing and sweat-joint fitting for water supply, the contractor shall furnish genuine wrought-iron galvanized pipe in place thereof. However, where substitutions are made, pipe one size larger than specified shall be provided.

HEATING PLANT

Heating plant shall be dual gas floor furnace of sufficient size to keep the entire house heated to 70 degrees F. when the outside temperature is 0

degrees F. and the wind velocity not in excess of 30 miles per hour. Installation shall be as indicated on the plans.

ELECTRIC WIRING

It is the purpose of this specification to describe a complete electrical installation. All material shall be of standard make and of quality and installed as

required by the National Board of Fire Underwriters. All outlets shall terminate in approved metal boxes. Switches shall be of toggle type. All outlets other than for lighting fixtures and switches shall be equipped with standard duplex connections. Wiring to outlets shall be of approved-size BX cable of sufficient size to carry the circuit load.

Each circuit shall be switched and fused and extended to a central panel board. This contractor shall terminate all circuits at an appropriate meter and fuse board.

Connection from meter panel to public service lines is not included in this contract, nor are electrical fixtures and appliances provided.